

Claims

1. A device for determining the sheet resistance of samples, in particular wafers and other two-dimensional objects, comprising a means for measuring the conductivity of the sample according to the eddy current technique, wherein the sample is introducible into a gap for measurement, and comprising a means for measuring the position of the sample in the gap for measurement and a computing means for determining the sheet resistance on the basis of the measured conductivity and of the position of the sample in the gap for measurement.
2. The device according to claim 1, wherein the means for measuring the position of the sample comprises a distance-measuring means which preferably operates in a contactless manner, in particular by means of ultrasound, capacitive or optical techniques.
3. The device according to claim 1 or 2, wherein the computing means comprises a memory in which a function is stored which is used in the calculation of the sheet resistance relative to the position of the sample in the gap for measurement.
4. The device according to claim 3, wherein coefficients of the function are stored in the memory which are specifically determined for the set-up of a device.
5. The device according to any one of claims 1 to 4, wherein the means for measuring the position of the sample acquires the position of the sample at least at two locations, preferably adjacent to and in particular at both sides of the location of the measurement of the conductivity, wherein preferably a pair of sensors are arranged at each location.
6. The device according to any of claims 1 to 5, comprising a means for determining the position of at least one of the two surfaces of a sample.
7. A method for determining the sheet resistance of samples, in particular wafers and other two-dimensional objects, comprising the steps of: measuring the conductivity of the sample according to the eddy current technique, wherein the sample is introducible into

a gap for measurement, measuring the position of the sample in the gap for measurement and determining the sheet resistance on the basis of the measured conductivity and the position of the sample in the gap for measurement.

8. The method according to claim 7, wherein the step of measuring the position of the sample comprises a distance-measuring operation which is preferably performed in a contactless manner, in particular by means of ultrasound, capacitive or optical techniques.
9. The method according to claim 7 or 8, wherein the step of determining the sheet resistance uses a stored function and comprises a calculation of the sheet resistance relative to the position of the sample in the gap for measurement.
10. The method according to claim 9, comprising the step of using stored coefficients of said function which are specifically determined for the set-up of a device.
11. The method according to any one of claims 7 to 10, wherein the step of measuring the position of the sample is performed at least at two locations, preferably adjacent to and in particular at both sides of the location of the measurement of the conductivity.
12. The method according to any one of claims 7 to 11, comprising the step of determining the position of at least one of the two surfaces of a sample.